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CLAIMS

What is claimed is:

1. An apparatus for removing smoke, airborne particulates, gases or like by-products of operating or commercial procedures producing such by-products, comprising:

6 a plenum having a top wall, a bottom wall spaced apart from said top wall, a first side wall extending between said top and bottom walls and presenting an outer periphery of said plenum, and a second side wall extending between said top and bottom walls and presenting an inner periphery of said plenum, a structure defining a generally open facing adjacent to the inner periphery of said plenum, said walls defining an internal plenum chamber in fluid communication with said open facing;

11 vacuum means operably coupled to said plenum for creating a reduced pressure within said plenum chamber, thereby drawing said by-products through said open facing; and

16 a support carried within said plenum chamber for maintaining said top and bottom walls in spaced apart relationship and distributing said reduced pressure along the open facing of said plenum whereby said by-products are drawn through said open facing from about said site.

2. The invention according to claim 1, wherein the open facing is defined at the junction of the top and inner walls.

3. The invention according to claim 2, wherein the open facing is defined by a bevel at said junction.

4. The invention according to claim 1, wherein the open facing is defined in the top wall.

5. The invention according to claim 1, wherein the size of the open facing may be varied.

6. The invention according to claim 1, further comprising a piece of fabric-like sheet material, said apparatus operably coupled to said piece of material.

- 1 7. The invention according to claim 1, further comprising a piece of malleable material operably coupled to the plenum.
8. The invention according to claim 1, said bottom wall including an adhesive layer for adhesive attachment of said vacuum head around a surgical site.
9. The invention according to claim 1, said plenum being generally annular, said inner periphery defining an access aperture for providing access to the site.
- 6 10. The invention according to claim 9, including a generally transparent film removably carried by said top wall across said access aperture.
- 11 11. The invention according to claim 10, said plenum further comprising a removable portion adjacent to the access aperture whereby the access aperture may be expanded.
12. The invention according to claim 1, wherein said plenum contains free ends to provide for flexibility of use of the apparatus.
13. The invention according to claim 1, wherein said plenum is introduced into a containment vessel to remove fumes.
14. A smoke evacuation system for removing gaseous byproducts of surgical procedures or noxious vapors from chemicals comprising:
 - a vacuum head for operative coupling to a vacuum source, said vacuum head positionable at a surgical site and substantially defining a plenum;
 - a plenum support for preventing the plenum from collapsing when a vacuum or low pressure is established therein; and
- 16 21. said vacuum head including an access opening having a peripheral edge and at least one removable portion adjacent to the peripheral edge.
15. The smoke evacuation system according to claim 14, wherein said at least one removable portion is defined by at least one line of weakness adjacent to the peripheral edge.